

## **REMARKS**

Prior to this Reply, Claims 1-10, 14-27, 29, 30, 35, 36 and 50-89 were pending. Through this Reply, Claims 75 and 84 have been amended to correct typographical errors. Importantly, such claims were not amended to distinguish any of the cited references. In addition, Claim 86 has been amended. No claims have been added or cancelled. Accordingly, Claims 1-10, 14-27, 29, 30, 35, 36 and 50-89 are at issue in the present case.

### **I. Allowable Subject Matter**

The Examiner objected to Claims 6, 8, 14, 17, 26, 74, 78, 82 and 86 were objected as being dependent on a rejected base claim. However, the Examiner indicated that such claims would be deemed allowable if rewritten in independent form to include all of the limitations of their respective base claims and any intervening claims.

Applicants note that independent Claim 84 includes limitations similar to those of allowable Claim 86, and, therefore, is believed to be allowable. Claim 86 inadvertently did not add further limitations to Claim 84. Accordingly, Claim 86 has been amended to include further limitations (i.e., limitations similar to allowable Claim 78). In view of the above, Applicants submit that Claims 84-89 are allowable.

### **II. Claim Rejections Under 35 U.S.C. §102(b)**

The Examiner rejected Claims 1, 2, 4, 21, 22, 24, 50, 51, 56-58, 73, 75 and 85 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,796,543 to Ton-That (hereinafter “Ton-That”). Applicants respectfully traverse the rejection because Ton-That does not disclose all of the limitations of the rejected claims.

Regarding Claim 1, Ton-That does not disclose: “recording at least one set of data segments onto said recording surface, each recorded data segment including a start, an end and a rotational phase from that data segment to each of the respective ones of all other data segments in the set, wherein the data segments are recorded with coherent relative rotational phases, *wherein each data segment includes one or more tracks*,” as required by Claim 1 (emphasis added).

In Col. 10, lines 38-64 (relied upon by the Examiner in rejecting Claim 1), Ton-That only discusses the preamble portion 504. Each preamble portion 504 is less than a track in length. Clearly, there is no teaching in this passage, or anywhere in Ton-That, that a preamble portion includes one or more tracks. If the Examiner disagrees, the Examiner is respectfully requested to clearly point to such disclosure in Ton-That.

For at least these reasons, Applicants believe that Claim 1 is patentably distinguishable from Ton-That. For at least the same reasons, all claims that depend from Claim 1 are likewise patentably distinguishable from Ton-That.

Claims 21 and 84 were rejected for substantially the same reasons as Claim 1. For at least the reasons provided above with respect to Claim 1, Applicants submit that Claims 21 and 84 (and the claims that depend from Claims 21 and 84) are patentably distinguishable from Ton-That.

Regarding Claims 2 and 22, as discussed above, Ton-That does not teach limitations of Claims 1 and 21. Further, in Col. 10, lines 38-45 and 55-57, Ton-That simply refers to phase coherence that relates only to the phases of flux reversals of patterns in preamble 504. Elements A, B, C and D in Fig. 6A are not data segments having coherent relative rotational phases, as claimed. Clearly, elements A, B, C and D in Fig. 6A of Ton-That have incoherent relative

rotational phases. Accordingly, for at least the above reasons, Applicants submit that Claims 2 and 22 (and the claims that depend from Claims 2 and 22) are patentably distinguishable from Ton-That.

Regarding Claim 50, Ton-That does not disclose: “a controller adapted for transferring data to and from said segments on the recording surface, wherein: (1) during data storing operations in each segment, the controller controls the transducer via the servo circuit to record data in that segment, such that data is stored in the segments on the recording surface with coherent phase, and (2) during data retrieval operations from each segment, the controller controls the transducer via the servo circuit to retrieve data from each segment,” as required by Claim 50. Further, Ton-That does not write data to preamble portions 504. The data segments 508 are not data segments with coherent relative rotational phases, as claimed.

Even further, in Col. 10, lines 37-42 (relied on by the Examiner in rejecting Claim 50), Ton-That only describes the contents of the preamble portion 504 in servo wedge 502 that are recorded therein, not writing data to data segments 508. On one hand, the Examiner interprets Ton-That’s data segments 508 as data segments with relative rotational phase coherence for reading data therefrom. On the other hand, the Examiner interprets Ton-That’s preamble 504 as data segments with relative rotational phase coherence for writing data thereto. According to the claimed invention, data is written to, and read from, data segments with relative rotational phase coherence. For at least these reasons, Applicants submit that Ton-That does not disclose all of the limitations of Claim 50. Accordingly, for at least these reasons, Applicants believe that Claim 50 and the claims that depend therefrom are patentably distinguishable from Ton-That.

Claim 51 was rejected for substantially the same reasons as Claim 2. Applicants believe that Claim 51 is patentably distinguishable from Ton-That for reasons similar to those provided with respect to Claim 2.

Regarding Claim 56, as detailed above in relation to Claim 1, in Col. 10, lines 55-57 (relied upon by the Examiner in rejecting Claim 56), Ton-That does not disclose that: “each data segment includes one or more tracks,” as required by Claim 56, wherein the data segments have relative rotational phase coherence. Each preamble portion 504 in Ton-That is less than a track. Therefore, Applicants believe that Claim 56 and all claims that depend therefrom are patentably distinguishable from Ton-That.

Regarding Claims 57 and 73, Ton-That does not disclose that tracks in each segment in the set are offset by a predetermined skew angle, wherein said predetermined skew angle is selected to minimize rotational latency as the transducer is positioned over adjacent tracks within a segment, as claimed. In Col. 2, lines 38-42 and Col. 13, lines 38-50 of Ton-That (relied upon by the Examiner), the term “skew angle” refers to the angle between the read head 202 and the write head 200 relative to the tracks. This has nothing to do with the claimed limitation wherein the tracks in each segment are offset by a predetermined skew angle to minimize rotational latency as the transducer is positioned over adjacent tracks within a segment. The claimed skew angle is clearly described in the specification and shown in the drawings (e.g., skew angle  $\alpha$  in Figs. 5 and 6A). The Examiner appears to be confusing the angle between the read/write heads in Ton-That, with the skew angle herein which relates to rotational latency. For at least these reasons, Applicants believe that Claims 57 and 73 (and all claims that depend from Claim 57 and Claim 73) are patentably distinguishable from Ton-That.

### **III. Claim Rejections Under 35 U.S.C. §103(a)**

The Examiner rejected Claims 3 and 23 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 6,445,531 to Gaertner et al. (hereinafter “Gaertner”). Rejection of Claims 3, 23 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Gaertner is respectfully traversed because the references, alone or in combination, do not disclose that for each data segment said relative start, end and rotational phases of that data segment to respective ones of all other data segments in the set are predetermined, as required by Claims 3 and 23.

As the Examiner admits, Ton-That fails to disclose that for each data segment said relative start, end and rotational phases of that data segment to respective ones of all other data segments in the set are predetermined. However, the Examiner states that Gaertner, Col. 4, lines 55-61, teaches such limitations, and that Ton-That can be modified for the medium to have those parameters in its seek profile to determine optimum seek profile. Applicant respectfully disagrees.

Gaertner is directed to a method of controlling an actuator in a disc drive to move a data head to implement an access by determining a first rotational position corresponding to a rotational position of the data head when the access will start and determining a second rotational position corresponding to a rotational position of the data head at a destination of the access. In Col. 4, lines 55-61 (relied upon by the Examiner), Gaertner describes how the first rotational position is calculated based on Equation 1. Indeed, the calculation based on Equation 1 shows that the rotational position is not predetermined. In fact, if the rotational position was predetermined there would be no need to calculate it (i.e., it would be already known). Further, the calculation in Equation 1 is based on time, which varies. Even further, the rotational phase in

Gaertner is the rotational position of the data head relative to data on disk, and it is not a rotational phase as claimed. By contrast, the rotational phase herein is the rotational phase, between one data segment and another data segment on disk.

The Examiner fails to discuss how Ton-That can be modified to include Gaertner's apparatus for dynamically adjusting seek operations therein. Applicants do not understand what the placement of information in servo wedges in Ton-That has to do with Gaertner's selecting seek profiles for adjusting seek operations. Applicants also do not understand how the purported benefit can be achieved. The Examiner does not explain how Ton-That can be modified without extensive change.

It is well settled that the reference itself must suggest the modification or combination proposed in order for the modification or combination to be valid. "The invention cannot be found obvious unless there was some explicit teaching or suggestion in the art to motivate one of ordinary skill to combine elements so as to create the same invention." *Winner International Royalty Corp. v. Wang*, No. 96-2107, 48 USPQ.2d 1139, 1140 (D.C.D.C. 1998). ("The prior art must provide one of ordinary skill in the art the motivation to make the proposed molecular modifications needed to arrive at the claimed compound." *In re Jones*, 958 F.2d 347, 21 USPQ.2d 1941, 1944 (Fed. Cir. 1992)). Applicants submit that the requisite suggestion is lacking.

For at least these reasons, Applicants submit believe that Claims 3 and 23 (and all claims that depend from Claim 3 and Claim 23) are patentably distinguishable from the combination of Ton-That and Gaertner, both alone and in combination.

The Examiner rejected Claims 5 and 25 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 5,483,393 to Mento et al. (hereinafter "Mento").

Rejection of Claims 5 and 25 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Mento is respectfully traversed, because the references alone or in combination do not disclose all of the claimed limitations.

As the Examiner admits, Ton-That fails to teach recording data segments such that for each data segment the rotational phase for that data segment relative to each of the other data segments in the set has one of a limited number of predetermined values, as required by Claim 5 and 25. However, the Examiner states that Mento (Col. 6, lines 35-52) teaches such limitations, and it would have been obvious to modify Ton-That to have servo sectors having a predetermined rotational phase in order to better control and provide adequate timing to the circuit elements in the disc. Applicants respectfully disagree.

In Col. 6, lines 35-52 (relied upon by the Examiner), Mento specifically states that sector phase timing depends on the choice of rotational speed of the recording disk and the number of servo sectors intended for an optimum servo loop sampling rate (Col. 6, lines 43-46), both of which are variable. Mento does not disclose that there are a limited number of rotational phases, and indeed the values are unlimited. The fact that after design choices are made, only some values fit in a circuit as the Examiner suggests, does not negate the fact that in Mento an unlimited number of rotational phases are possible.

For at least these reasons, Applicants believe that Claims 5 and 25 (and all claims that depend from Claim 5 and Claim 25) are patentably distinguishable from the combination of Ton-That and Mento.

The Examiner rejected Claims 7, 20, 27 and 87 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 4,864,435 to Kawakami et al. (“Kawakami”). Rejection of Claims 7, 20, 27 and 87 under 35 U.S.C. §103(a) as being

unpatentable over Ton-That in view of Kawakami is respectfully traversed, because the references alone or in combination do not disclose that: “for each data segment in the set the relative rotational phases from that data segment to respective ones of the other data segments in the set are the same,” or that: “said relative rotational phases of that data segment to respective ones of all the other data segments in the set are predetermined independent of the start or end track of that data segment.”

As admitted by the Examiner, Ton-That fails to disclose the above-quoted limitations. Applicants submit that Kawakami also fails to disclose such limitations.

Kawakami states: “In more detail, generally, recording into the respective tracks of the magnetic disc 60 is performed in such a manner that the usual picture areas of the video signals in the respective tracks have the same rotational phase with one another” (Col. 17, lines 25-29). Clearly, Kawakami does not even mention predetermined relative rotational phases independent of the start or end track of a data segment. Kawakami only states that picture areas have the same rotational phase, but Kawakami does not disclose that for each data segment in the set of data segments, the relative rotational phases from that data segment to respective ones of the other data segments in the set are the same. If the claims are once again rejected, Applicants respectfully request the Examiner to explain exactly how such limitations are disclosed in the references.

For at least these reasons, Applicants submit that Claims 7, 20, 27 and 87 (and all claims dependent therefrom) are patentably distinguishable from Ton-That and Kawakami.

The Examiner rejected Claims 9, 10, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 6,295,176 to Reddy et al. (“Reddy”).



Rejection of Claims 9, 10, 29 and 30 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Reddy is respectfully traversed, because the references alone or in combination do not disclose that: data tracks in data segments are offset by a predetermined skew angle, or that said predetermined skew angle is selected to minimize rotational latency as the transducer is positioned over adjacent tracks within a segment.

As the Examiner admits, Ton-That fails to teach that data tracks in data segments are offset by a predetermined skew angle, as required by Claim 9 and 29. Further, despite the Patent Office's assertion, Reddy (Col. 13, lines 42-47) does not disclose the claimed limitations. The track skew mentioned in Reddy is staggering or radial placement of data on tracks, from one track to another (Col. 13, lines 41-42). This has nothing to do with the claimed skew angle described in the specification and shown in the drawings (e.g., skew angle  $\alpha$  in Figs. 5 and 6A).

For at least the above reasons, Applicants submit that Claim 9 and 29 (and all claims that depend from Claim 9 and Claim 29) are patentably distinguishable from Ton-That and Reddy.

Regarding Claims 10 and 30, as discussed, the references do not disclose all of the limitations of Claim 9 and 29. Further, Col. 13, lines 38-50 of Ton-That (relied upon by the Examiner) does not disclose that: data tracks in data segments are offset by a predetermined skew angle, or that said predetermined skew angle is selected to minimize rotational latency as the transducer is positioned over adjacent tracks within a segment, as required by Claims 10 and 30. As discussed, the skew in Ton-That is that between the read/write heads, and not related to rotational phase between data segments as claimed herein. For at least these reasons, Applicants believe that Claims 10 and 30 (and all claims that depend from Claim 10 and Claim 30) are patentably distinguishable from Ton-That and Reddy.

The Examiner rejected Claims 15, 16, 18, 35, 79, 80 and 81 were rejected under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. 5,077,736 to Dunphy, Jr. et al. (hereinafter “Dunphy”). Applicants respectfully traverse the Examiner’s rejection.

With respect to Claims 15, 35 and 79, the Examiner admits that Ton-That fails to disclose receiving one or more incoming data streams and partitioning each incoming data stream into data segments before recording on the media. Further, Dunphy (Col. 4, lines 3-6, relied upon by the Examiner) simply states that in response to the associated central processing unit writing data to the disk drive memory, a control module in the disk drive memory divides the received data into a plurality of segments. Clearly, there are no data streams involved or addressed in Dunphy and no steps of partitioning data streams are provided in Dunphy. For at least these reasons, Applicants believe that Claims 15, 35 and 79 are patentably distinguishable from Ton-That and Dunphy, both alone and in combination.

With respect to Claims 16 and 80, Dunphy (Col. 15, lines 51-53, relied upon by the Examiner) does not mention data streams involved or any steps of partitioning data streams. For at least these reasons, Applicants submit that Claims 16 and 80 are patentably distinguishable from Ton-That and Dunphy, both alone and in combination.

The Examiner rejected Claims 18 and 81 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Dunphy as applied to Claim 15, and further in view of U.S. Patent No. 5,907,448 to Watanabe et al. (“Watanabe”). Rejection of Claims 18 and 81 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Dunphy as applied to Claim 15, and further in view of Watanabe, is respectfully traversed because the references alone or in combination do not disclose all of the claimed limitations.

Watanabe does not disclose: “reading the recorded data segments from the storage media, and reformulating said one or more data streams from the read data segments,” as required by Claims 18 and 81. In Col. 39, lines 6-11, Watanabe states that the playback head 90-11a outputs a reproduced signal corresponding to data recorded in the data segments 90-2 and also outputs a reproduced signal corresponding to the clock marks 90-3, and supplies these reproduced signals through the playback amplifier 90-12 to the clock generator 90-13 and the data demodulator 90-14. As is clear, reproducing a clock signal in Watanabe is unrelated to the claimed limitations of reformulating data streams that were partitioned into data segments when recorded. As such, combination of the references does not disclose all of the claimed limitations. Further, the references do not provide a motivation to combine them, nor has the Examiner explained where such motivation can be found in the references.

For at least these reasons, Applicants believe that Claims 18 and 81 (and all claims that depend therefrom) are patentably distinguishable from Ton-That, Dunphy and Watanabe.

The Examiner rejected Claims 19, 36, 83 and 89 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 6,208,479 to Suzuki. Rejection of Claims 19, 36, 83 and 89 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Suzuki, is respectfully traversed because the references alone or in combination do not disclose recording data segments on the storage media so as to obtain a substantially deterministic data transfer rate to and from the data storage media.

As the Examiner admits, Ton-That fails to teach such limitations. Suzuki states that the circuit of FIG. 2 is connected with a clock which generates the clock frequency to determine the transfer rate of the data writing and reading operation (Col. 2, lines 31-34). In Suzuki the read/write circuit determines data transfer rate, whereas in the claimed invention the data

segments are recorded so as to obtain a substantially deterministic data transfer rate to and from the data storage media. The substantially deterministic data transfer rate is based on the coherent relative rotation phase of the data segments. This is not disclosed in Suzuki.

For at least the above reasons, Claims 19, 36, 83 and 89 (and all claims that depend therefrom) are patentably distinguishable from Ton-That and Suzuki.

The Examiner rejected Claim 52 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Gaertner. Rejection of Claim 52 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Gaertner is respectfully traversed because the references alone or in combination do not disclose that for each segment: “said relative start, end and rotational phases of that segment to respective ones of all other segments in the set are predetermined,” as required by Claim 52. Claim 52 was rejected for reasons similar to Claim 3. Applicants submit that (at least) for reasons similar to those provide with respect to Claim 3, Claim 52 is patentably distinguishable from the combination of Ton-That and Gaertner.

The Examiner rejected Claims 53, 54, 59 and 76 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Mento. Rejection of Claims 53, 54, 59 and 76 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Mento is respectfully traversed because the references alone or in combination do not disclose the claimed limitations.

Claims 53 and 59 were rejected for substantially the same reasons as Claim 5. Applicants submit that Claims 53 and 59 (and the claims that depend therefrom) are patentably distinguishable from Ton-That and Mento for reasons similar to those provided with respect to Claim 5.

The Examiner rejected Claim 55 under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Mento as applied to Claim 53, and further in view of Kawakami. Rejection of Claim 55 under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Mento as applied to Claim 53 and further in view of Kawakami, is respectfully traversed because the references alone or in combination do not disclose all of the claimed limitations.

Claim 55 was rejected for substantially the same reasons as Claim 7. Applicants submit that Claim 55 is patentably distinguishable from Ton-That, Mento and Kawakami for reasons similar to those provided with respect to Claim 7.

The Examiner rejected Claims 60, 77 and 88 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of U.S. Patent No. 5,596,196 to Hull et al. (hereinafter "Hull"). Rejection of Claims 60, 77 and 88 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Hull is respectfully traversed.

As discussed above, Ton-That does not disclose all of the limitations of Claim 50. (It is unclear why the Examiner states, both, that Ton-That discloses 3 data segments per track and 88 data segments per track). As the Examiner admits, Ton-That does not disclose one or more concentric recording zones, each recording zone including a plurality of tracks, such that at least in one recording zone each track includes the same number of segments therein, as claimed. Further, Hull (Col. 3, lines 12-18, relied upon by the Examiner) simply states: "FIG. 3 is a simplified graphical diagram of a top view of a prior art embedded servo disk surface recorded using a zone bit recording format. Concentric zones 10a, 10b, 10c are defined as shown. Zone boundaries 20 may be arbitrarily placed to increase the number of physical sectors per zone 10."

However, Hull does not disclose recording zones, wherein at least in one zone each track includes the same number of segments therein. And, Ton-That does not disclose that several

tracks include the same number of segments that have coherent relative rotational phase. As such, a resulting combination of the references does not disclose the claimed limitations.

Further, there is no motivation in the references to combine the references.

For at least the above reasons, Applicants submit that Claims 60, 77 and 88 (and all claims that depend therefrom) are patentably distinguishable from Ton-That and Hull.

The Examiner rejected Claim 61 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Kawakami. Rejection of Claim 61 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Kawakami is respectfully traversed.

Claim 61 was rejected for substantially the same reasons as Claim 20. Applicants submit that Claim 61 is patentably distinguishable from Ton-That and Kawakami (both alone and in combination) for (at least) reasons similar to those provided with respect to Claim 20.

The Examiner rejected Claim 62 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Suzuki. Rejection of Claim 62 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Suzuki is respectfully traversed. Claim 62 was rejected for substantially the same reasons as Claim 19. Applicants submit that Claim 62 is patentably distinguishable from Ton-That and Suzuki (both alone and in combination) for (at least) reasons similar to those provided with respect to Claim 19.

The Examiner rejected Claims 63-66 and 68-71 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Gaertner. Rejection of Claim 63 under 35 U.S.C. §103(a) as being unpatentable over Ton-That in view of Gaertner is respectfully traversed. As the Examiner admits, Ton-That fails to disclose that at least one seek profile, for generating actuator current commands based on the seek profile to perform at least one seek operation from a starting segment to a destination segment, the seek profile including constraints for the seek

operation as a function of: (1) a seek distance representing the radial distance between the starting and destination segments, and (2) a seek time based at least on the relative rotational phase between the starting and destination segments, as claimed.

Gaertner (Col. 6, lines 1-4 and lines 60-67, relied upon by the Examiner), describes determining a slower or slowest of the multiple seek profiles which can be used to move the data head from the first track to the second track within the access time is determined. Subsequently, the actuator is controlled using the determined slower or slowest of the multiple seek profiles to implement the access. As is clear from Gaertner, the coherent relative rotational phases of first and second data segments in selecting a seek profile, as claimed, is not utilized. For at least these reasons, Applicants submit that Claim 63 and all claims that depend therefrom are patentably distinguishable from Ton-That and Gaertner.

Regarding Claim 64, Gaertner does not disclose that the seek profile includes constraints as a function of the seek distance and the seek time for the seek operation, such that: (1) each seek operation is completed at the expiration of the respective seek time, and (2) for at least one set of seek distances, the respective seek times are predetermined, as claimed. By contrast, Gaertner, block 440 of Fig. 2 (relied upon by the Examiner), states that a slower or slowest of the multiple seek profiles which can be used to move data head 160 from the current track to the destination track, within the determined access time, is then determined. In Gaertner, there is no mention or teaching of a seek profile such that each seek operation is completed at the expiration of the respective seek time, and for at least one set of seek distances, the respective seek times are predetermined. For at least these reasons, Applicants submit that Claim 64 is patentably distinguishable from Ton-That and Gaertner both alone and in combination.

Regarding Claim 65, as the Examiner states, Ton-That and Mento fail to teach that for at least a subset of the data segments, respective inter-segment seek times are the same. Gaertner, Col. 3, lines 28-40 (relied upon by the Examiner) discusses determining first and second rotational positions, and determining an access time required to move a data head from the first rotational position to the second rotational position. This has nothing to do with the limitations of Claim 65. For at least these reasons, Applicants submit that Claim 65 is patentably distinguishable from Ton-That and Gaertner.

Claim 71 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Mento as applied to Claim 63, and further in view of Dunphy, substantially for the same reasons as rejection of Claim 15. Applicants submit that Claim 71 is patentably distinguishable from Ton-That, Mento and Dunphy (at least) for reasons similar to those provided with respect to Claim 15.

The Examiner rejected Claim 67 under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Gaertner as applied to Claim 54, and further in view of U.S. Patent No. 5,412,809 to Tam et al. (hereinafter “Tam”). Applicants respectfully traverse the Examiner’s rejection.

Ton-That and Gaertner do not disclose all of the limitations of Claim 67. Further, Tam does not disclose a controller that obtains actuator current level and transducer motion constraints based on the seek time and the seek distance for that seek operation, and the driver applies current to the actuator as a function of at least the current level and the transducer motion constraints to complete the seek operation at the expiration of the seek time, as claimed. Tam (Col. 11, line 62 to Col. 12, line 8, relied upon by the Examiner) discusses a disk drive circuit and method to allow the user to adopt the performance (access time) versus power consumption to meet the system requirements, which is called a power saving access time. The Examiner fails



to explain how that has anything to do with obtaining an actuator current level and transducer motion constraints based on the seek time and the seek distance for a seek operation, and applying current to the actuator as a function of at least the current level and the transducer motion constraints to complete the seek operation at the expiration of the seek time.

For at least the above reasons, Applicants submit that Claim 67 and the claims that depend therefrom are patentably distinguishable from Ton-That, Gaertner and Tam.

The Examiner rejected Claim 72 under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Gaertner as applied to Claim 71, and further in view of U.S. Patent No. 6,384,998 to Price et al. (hereinafter “Price”). Rejection of Claim 72 under 35 U.S.C. §103(a) as being unpatentable over Ton-That and Gaertner as applied to Claim 71, and further in view of Price is respectfully traversed.

Price (Col. 5, lines 33-35) does not disclose means for combining data segments read from the storage device to reformulate one or more output data streams. In Col. 5, lines 33-35, Price states that the head reading the first disk storage surface 402 produces a data stream 418 having a first servo signal corresponding to the first servo track segment 410A, and a first data signal corresponding to first data segment 412A, and so forth. Similarly, the head reading the second disk surface 404 produces a data stream 420 having a second servo signal corresponding to the second servo track segment 414A, the second data signal corresponding to the second data segment 416A, and so forth.

There is no teaching of reformulating data segments to generate a data stream that was partitioned and recorded as data segments with coherent relative rotational phases. And, there is no reformulation step in Price.

For at least these reasons, Applicants submit that Claim 72 is patentably distinguishable from Ton-That, Gaertner and Price (both alone and in combination).

**IV. Conclusion**

Applicants believe that no additional claim fees are due. Nevertheless, the Commissioner is hereby authorized to charge Deposit Account No. 50-2198 for any fee deficiencies associated with filing this paper.

Applicants believe that the application appears to be in form for allowance. Accordingly, reconsideration and allowance thereof is respectfully requested.

The Examiner is invited to contact the undersigned at the below-listed telephone number regarding any matters relating to the present application.

Respectfully submitted,



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